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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/647,769	08/25/2003	S. Brandon Keller	100111257-1	2767

22879 7590 01/30/2007

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EXAMINER

THANGAVELU, KANDASAMY

ART UNIT	PAPER NUMBER
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2123

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
3 MONTHS	01/30/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/647,769

Applicant(s)

KELLER ET AL.

Examiner

Kandasamy Thangavelu

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 08 December 2006.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 25 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

1. This communication is in response to the Applicant's Response mailed on December 8, 2006. Claim 7 was amended. Claims 1-20 of the application are pending. This office action is made non-final.

Claim Rejections - 35 USC § 112

2. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

3. Claims 1-20 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

3.1 Claim 1, Lines 3-8 state, "creating a consistency database including at least one consistency indicator for each block of interest in the data model;

executing one of the sub-modules to perform an analysis of a current version of the data model;

comparing at least one data field value corresponding to said consistency indicator, for each block of interest". The term "block of interest" is undefined and therefore, vague and indefinite.

Claim 1, Lines 7-10 state, "comparing at least one data field value corresponding to said consistency indicator, for each block of interest, in source files in the current version of the data model being analyzed, against a corresponding said consistency indicator in the consistency database".

From the statement, "creating a consistency database including at least one consistency indicator for each block of interest", it is understood that each block of interest has one consistency indicator. The stating, "comparing at least one data field value **corresponding to said consistency indicator**, for each block of interest, ... against a corresponding said consistency indicator in the consistency database" is vague and indefinite. Is this "a corresponding said consistency indicator" different from the "said consistency indicator" or same?

Claim 1, Lines 11-13 state, "issuing a warning indicating a possible discrepancy between data in the current version of the data model and corresponding said data in a previous said version of the data model". There is no antecedent basis for "previous said version" since there is no reference to a version before, but only to a "current version". If the said version refers to current version, is "previous said version" same as the current version? Therefore, the "previous said version is vague and indefinite. Since the "previous said version" is vague and indefinite, "corresponding said data in a previous said version of the data model" is also vague and indefinite.

Claim 1, Lines 11-16 state, "issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator". From Lines 3-4, "creating a consistency

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database including at least one consistency indicator for each block of interest in the data model” and Lines 7-8, “comparing at least one data field value corresponding to said consistency indicator, for each block of interest”, it is understood that one **consistency indicator is associated with a block of interest** and that **at least one data field value corresponding to said consistency indicator, for each block of interest** is compared against something. Then stating “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator” is vague and indefinite since a data model has many blocks of interest and it is not clear as to which block of interest this consistency indicator belongs and the at least one data field value belongs.

3.2 Claim 5, Lines 3-8 state, "creating a consistency database including at least one consistency indicator for each block of interest in the data model;

executing one of the sub-modules to perform an analysis of a current version of the data model;

comparing at least one data field value corresponding to said consistency indicator, for each block of interest". The term “block of interest” is undefined and therefore, vague and indefinite.

Claim 5, Lines 7-10 state, "comparing at least one data field value corresponding to said consistency indicator, for each block of interest, in source files in the current version of the data model being analyzed, against a corresponding said consistency indicator in the consistency database".

From the statement, “creating a consistency database including at least one consistency indicator for each block of interest”, it is understood that each block of interest has one consistency indicator. The stating, “comparing at least one data field value **corresponding to said consistency indicator**, for each block of interest, ... against a **corresponding said consistency indicator** in the consistency database” is vague and indefinite. Is this “a corresponding said consistency indicator” different from the “said consistency indicator” or same?

Claim 5, Lines 14-15 state, “issuing a warning indicating a possible discrepancy between data in the version of the data model”. There is insufficient antecedent basis for “the version” in the claim. There is only a reference to a current version before.

Claim 5, Lines 14-16 state, “issuing a warning indicating a possible discrepancy between data in the version of the data model and corresponding said data in a previous said version of the data model”. Is “previous said version” same as the current version since “the version” is not defined? Therefore, the “previous said version is vague and indefinite. Since the “previous said version” is vague and indefinite, “corresponding said data in a previous said version of the data model” is also vague and indefinite.

Claim 5, Lines 14-19 state, “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator”. From Lines 3-4, “creating a consistency database including at least one consistency indicator for each block of interest in the data model” and Lines 7-8, “comparing at least one data field value corresponding to said consistency indicator, for each block of interest”, it is understood that one **consistency indicator is**

associated with a block of interest and that **at least one data field value corresponding to said consistency indicator, for each block of interest** is compared against something. Then stating “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator” is vague and indefinite since a data model has many blocks of interest and it is not clear as to which block of interest this consistency indicator belongs and the at least one data field value belongs.

3.3 Claim 7, Lines 4-5 state, " a consistency database, accessible by the processor, for storing consistency information for each block of interest in the data model ". The term “block of interest” is undefined and therefore, vague and indefinite.

Claim 7, Lines 6-7 state, “a comparison module, capable of accessing the consistency database and executable via said processor, for comparing at least one data field value”. The use of the term “capable of” makes the claim vague and indefinite since it does not state what the module does, but states what it is capable of doing.

Claim 7, Lines 6-10 state, "a comparison module, capable of accessing the consistency database and executable via said processor, for comparing at least one data field value, corresponding to said consistency information, against corresponding said consistency information in the consistency database".

From the statement, “a consistency database, accessible by the processor, for storing consistency information for each block of interest in the data model”, it is understood that each block of interest has one consistency information. The stating, “a comparison module, capable

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of accessing the consistency database and executable via said processor, for comparing at least one data field value, corresponding to said consistency information, against corresponding said consistency information in the consistency database” is vague and indefinite since it does not state as to which block of interest this consistency information belongs.

Claim 7, Lines 12-14 state, " an interface module, responsive to detection of a difference between said data field value in a current version of the data model being analyzed and a corresponding said consistency information".

From the statement, “a consistency database, accessible by the processor, for storing consistency information for each block of interest in the data model”, it is understood that each block of interest has one consistency information. The stating, “an interface module, responsive to detection of a difference between said data field value in a current version of the data model being analyzed and a corresponding said consistency information” is vague and indefinite since it does not state as to which block of interest this consistency information and the data field value belong.

Claim 7, Lines 15-17 state, “issuing a warning indicating a possible discrepancy between data in the current version of the data model and corresponding said data in a previous said version of the data model”. There is no antecedent basis for “previous said version” since there is no reference to a version before, but only to a “current version”. If the said version refers to current version, is “previous said version” same as the current version? Therefore, the “previous said version is vague and indefinite. Since the “previous said version” is vague and indefinite, “corresponding said data in a previous said version of the data model” is also vague and indefinite.

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3.4 Claim 13, Lines 3-8 state, "means for creating a consistency database including at least one consistency indicator for each block of interest in the data model;

means for executing one of the sub-modules to perform an analysis of a current version of the data model;

means for comparing a data field value corresponding to said consistency indicator, for each block of interest". The term "block of interest" is undefined and therefore, vague and indefinite.

Claim 13, Lines 7-10 state, "means for comparing a data field value corresponding to said consistency indicator, for each block of interest, in source files in the current version of the data model being analyzed, against a corresponding said consistency indicator in the consistency database".

From the statement, "creating a consistency database including at least one consistency indicator for each block of interest", it is understood that each block of interest has one consistency indicator. The stating, "comparing a data field value **corresponding to said consistency indicator**, for each block of interest, ... against **a corresponding said consistency indicator** in the consistency database" is vague and indefinite. Is this "**a corresponding said consistency indicator**" different from the "said consistency indicator" or same?

Claim 13, Lines 14-16 state, "means for issuing a warning indicating a possible discrepancy between data in the version of the data model being analyzed and corresponding said data in a previous said version of the data model". There is no antecedent basis for "previous said version" since there is no reference to a version before, but only to a "current version". If

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the said version refers to current version, is “previous said version” same as the current version? Therefore, the “previous said version is vague and indefinite. Since the “previous said version” is vague and indefinite, “corresponding said data in a previous said version of the data model” is also vague and indefinite.

Claim 13, Lines 11-16 state, “means for issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator”. From Lines 3-4, “means for creating a consistency database including at least one consistency indicator for each block of interest in the data model” and Lines 7-8, “means for comparing at least one data field value corresponding to said consistency indicator, for each block of interest”, it is understood that one **consistency indicator is associated with a block of interest** and that **at least one data field value corresponding to said consistency indicator, for each block of interest** is compared against something. Then stating “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator” is vague and indefinite since a data model has many blocks of interest and it is not clear as to which block of interest this consistency indicator belongs and the at least one data field value belongs.

3.5 Claim 18, Lines 5-10 state, "creating a consistency database including at least one consistency indicator for each block of interest in the data model;

executing one of the sub-modules to perform an analysis of a current version of the data model;

comparing a data field value corresponding to said consistency indicator, for each block of interest". The term "block of interest" is undefined and therefore, vague and indefinite.

Claim 18, Lines 9-12 state, "comparing a data field value corresponding to said consistency indicator, for each block of interest, in source files in the current version of the data model being analyzed, against a corresponding said consistency indicator in the consistency database".

From the statement, "creating a consistency database including at least one consistency indicator for each block of interest", it is understood that each block of interest has one consistency indicator. The stating, "comparing a data field value **corresponding to said consistency indicator**, for each block of interest, ... against **a corresponding said consistency indicator** in the consistency database" is vague and indefinite. Is this "a corresponding said consistency indicator" different from the "said consistency indicator" or same?

Claim 18, Lines 16-17 state, "issuing a warning indicating a possible discrepancy between data in the version of the data model". There is insufficient antecedent basis for "the version" in the claim. There is only a reference to a current version before.

Claim 18, Lines 16-18 state, "issuing a warning indicating a possible discrepancy between data in the version of the data model and corresponding said data in a previous said version of the data model". Is "previous said version" same as the current version since "the version" is not defined? Therefore, the "previous said version is vague and indefinite. Since the "previous said version" is vague and indefinite, "corresponding said data in a previous said version of the data model" is also vague and indefinite.

Claim 18, Lines 16-21 state, “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator”. From Lines 5-6, “creating a consistency database including at least one consistency indicator for each block of interest in the data model” and Lines 9-10, “comparing at least one data field value corresponding to said consistency indicator, for each block of interest”, it is understood that one **consistency indicator is associated with a block of interest** and that **at least one data field value corresponding to said consistency indicator, for each block of interest** is compared against something. Then stating “issuing a warning ... in response to detecting a difference between said at least one data field value in the current version of the data model being analyzed and the corresponding said consistency indicator” is vague and indefinite since a data model has many blocks of interest and it is not clear as to which block of interest this consistency indicator belongs and the at least one data field value belongs.

3.6 Claim 19, Line 1 states, “The method of claim 18”. There is insufficient antecedent basis for “The method of claim 18”, since claim 18 refers to “A software product”.

3.7 Claims rejected but not specifically addressed are rejected because of their dependency on rejected claims.

Response to Arguments

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4. Applicant's arguments filed on October 6, 2006 have been fully considered. Claim rejections under 35 USC 103 (a) are withdrawn in response to applicant's arguments. Additional Claim rejections under 36 USC 112 Second Paragraph and 35 USC 101 are included in this Office Action.

4.1 As per the applicant's argument that "Matsumura makes no disclosure regarding data model consistency during analysis or of using a consistency database for storing consistency identifiers for comparison against consistency indicators of the data model; Beardslee does not relate to solving issues of a data model being modified between analyses, particularly since the device under test of Beardsley has been fabricated; Duffield discloses decoding time information from the video signal and comparing it to the time information maintained in the system to determine a time difference; if this time difference is in a predetermined range, it indicates that the time information from the television signal is invalid; Applicants can find no motivation to combine television signal decoding with and E-CAD tool to determining whether a model of a circuit design under analysis has been modified; the combination of Matsumura, Beardslee, Duffield and Tanaka is neither desirable, nor obvious; it would not be obvious to combine a method for producing a test pattern for use in an LSI tester (Matstunura) with a method for debugging fabricated hardware designs (Beardslee), a system for processing a television signal (Duffield) and a method for centralizing the steps of designing a complex object (Tanaka) when trying to solve the problem of ensuring consistency of a data model being analyzed by two or more sub-programs of an E-CAD tool since the combination of test patterns, hardware debugger,

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television signal processing and centralizing steps of design would not produce a useful result”, the Examiner has with drawn art rejections against claims 1 and 4.

4.2 As per the applicant’s argument that “Neither Matsumura, Beardslee, Duffield nor Tanaka teach or suggest creating a consistency database including at least one consistency indicator for each block of interest in the data model”, the Examiner has with drawn art rejections against claims 1 and 4.

4.3 As per the applicant’s argument that “Tanaka makes no disclosure of comparing at least one data field value corresponding to said consistency indicator, for each block of interest, in source files in the current version of the data model being analyzed, against a corresponding said consistency indicator in the consistency database”, the Examiner has with drawn art rejections against claims 1 and 4.

4.4 As per the applicant’s argument that “Matsumura makes no disclosure regarding data model consistency during analysis or of using a consistency database for storing consistency identifiers for comparison against consistency indicators of the data model”, the Examiner has with drawn art rejections against claims 1 and 4.

4.5 As per the applicant’s argument that “neither Matsumura, Duffield nor Tanaka disclose or suggest creating a consistency database including at least one consistency indicator for each block of interest in the, data model; Matsumura does not disclose a comparison module for

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comparing consistency information within the consistency database against corresponding consistency information within a data field of a current version of the data model being analyzed”, the Examiner has with drawn art rejections against claim 7.

4.6 As per the applicant’s argument that “claim 10 recites that the comparison module is functionally integrated into each of a plurality of the sub-modules; Matsumura, Duffield and Tanaka make no disclosure of a comparison module integrated into each of the plurality of sub-modules of an E-CAD tool; claim 11 recites that a plurality of the sub-modules are simultaneously operational. Matsumura make no disclosure of sub-modules of an E-CAD tool being simultaneously operational; Claim 12 recites that said comparison module is functionally independent of each of the sub-modules; since Matsumura make no disclosure of a comparison module for comparing consistency information, Matsumura cannot disclose of the comparison module being independent of sub-modules of an E-CAD tool”, the Examiner has with drawn art rejections against claims 10-12.

4.7 As per the applicant’s argument that “neither Matsumura, Beardslee, Duffield, Tanaka, Sample nor Ho disclose use of the title stamp and file creation time as a consistency indicator for determining consistency of a data model being analyzed by sub-programs of an E-CAD tool”, the Examiner has with drawn art rejections against claim2.

4.8 As per the applicant’s argument that “the dump file of Matsumura is not equivalent to a consistency database, and Matsumura makes no disclosure of including at least one consistency

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indicator for each block of interest in the data model; the timing data within the timing file 102, FIG. 1, of Matsumura is created from the dump file resulting from performing a logic simulation in the design stage of the LSI device. This does not represent a consistency database of consistency information as required by claim a; Matsumura does not disclose a comparison module for comparing consistency information within the consistency database against corresponding consistency information within a data field of a current version of the data model being analyzed; Beardslee does not disclose or suggest means for comparing a data field value corresponding to the consistency indicator for each block of interest within the data model; the timestamp values of Sample do not relate to consistency indicators and a consistency database; Ho makes no disclosure of utilizing this time and date association with a consistency database; the reasons for combining Duffield with Matsumura are not obvious, since Duffield relates to processing of a television signal; Duffield compares a time determined from the video signal to a time maintained within the system to determine if the time information is valid; the time of Duffield is not related to consistency of blocks of interest in a data model", the Examiner has with drawn art rejections against claims 13 and 14.

4.9 As per the applicant's argument that "Neither Matsumura, Beardslee, Duffield, Tanaka, Sample nor Ho disclose or suggest functionally integrating the means for issuing a warning into each of a plurality of sub-modules Matsumura does not disclose or suggest simultaneous sub-module operation anywhere", the Examiner has with drawn art rejections against claims 16 and 17.

Conclusion

5. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Dr. Kandasamy Thangavelu whose telephone number is 571-272-3717. The examiner can normally be reached on Monday through Friday from 8:00 AM to 5:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Paul Rodriguez, can be reached on 571-272-3753. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to TC 2100 Group receptionist: 571-272-2100.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



K. Thangavelu
Art Unit 2123
January 26, 2007